1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

subsequent episods in their history or century in time. The description of the effect of the poison is especially suggestive of the Seri; as pointed out on a later page, the Seri arrow-venom is magical in motive, but actually consists of decomposing and ptomaine-filled organic matter, so that it is sometimes septic in fact, while the arrow-poison of the neighboring Opata, Jova, and other Piman tribes was (so far as can be ascertained) vegetal; and these accounts seem to attest septic poisoning rather than the effects of any known vegetal toxic.[1]

Such (assuming the validity of the several identifications) are the earliest records concerning the truculent tribesmen and the desolate district known centuries later as the Seri and Seriland.

About 1545 began the Dark Ages in the history of northwestern Mexico; the excursion of Guzman, and the journeys of Cabeza de Vaca and Friar Marcos and of Coronado himself, died out of the memory of the solitary adventurers and scattering settlers who slowly infused Spanish culture and a strain of Caucasian blood into the Sonoran province; even the route taken by Coronado's imposing cavalcade was lost for centuries, to be retraced only during the present generation, largely through the determinations of Simpson, Bandelier, Winship, and Hodge.[2] It is true that Don Francisco de Ibarra penetrated the territory in 1563, and remained until rumors of gold in other districts drew him elsewhere; it is also true that Captain Diego Martinez de Hurdaide pushed into the province in 1584, and entered on a career of subjugation, waging persistent war with the Yaqui, which resulted in the acquisition of the territory of Sonora by treaty April 15, 1610;[3] yet few records of exploration or settlement were written before the advent of the Jesuit missionaries, toward the end of the seventeenth century.

Still more astounding was the eclipse of knowledge of the gulf. Despite Ulloa's survey of the entire coast, recorded in an itinerary so detailed that every day's sailing may readily be retraced, and despite Alarcon's repetition of the surveys and extension of the discoveries far up Rio Colorado (where his work was verified by that of Melchior Diaz), a mythic cartography arose to shadow knowledge and delude exploration for a century and a half; for "upon the authority of a Spanish chart, found accidently by the Dutch, and of the authenticity of which there never were, or indeed could be, any proofs obtained, an opinion prevailed that California was an island, and the contrary assertion was treated even by the ablest geographers as a vulgar error";[4] and a mythic strait formed by cartographic extension of the Gulf of California indefinitely northward haunted the maps of the seventeenth century. This error was adopted by various geographers, including Fredericus

[1] It should be noted that Mr. F. W. Hodge, whose large acquaintance with the Southwest and its literature gives his opinion great weight, is inclined to class the Indians in question as Opata.

[2] Op. cit., pp. 29-72.

[3] Sonora Historica y Descriptiva, por F. T. Davila, 1851, p. 8.

[4] A Natural and Civil History of California; translated from the original Spanish of Miguel Venegas. London, 1759. vol. i, preface.

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411 and seldom stirred until the stranger approached within 50 or 60 yards; whence it may be assumed that these distances fairly indicate the ordinary range of Seri arrows. The few accounts of conflicts in which arrows are mentioned prove, however, that these missiles are discharged with great rapidity and in considerable numbers during the brief interval to which the fighting is customarily limited.

278 411 The most notorious feature of the Seri warfare, and that of deepest interest to students, is the reputed use of poisoned arrows. The scattered literature of the tribe, from the days of Coronado onward, abounds in references to this custom; the Jesuit authorities give somewhat varied yet fairly consistent descriptions of the preparation and the effects of these arrows; Hardy added his testimony as to the character of the poison; General Stone gave directly corroborative evidence; hacendero Encinas gives witness to the effects of the envenomed missiles on his own stock; while Mashém recounted to the 1894 expedition the various uses of the "poisoned" arrows and highly extolled their potency, though he was noncommittal—save in casual allusions—as to the details of the poisoning. A part of the arrows acquired by this expedition and now preserved in the National Museum were professedly poisoned; they are easily distinguished by a thin varnish of gummy and greasy substance over the iron tips and wooden foreshafts, and especially about the attachments of mesquite gum and sinew. According to Mashém's asseverations, such arrows are habitually used in war save when the supply is exhausted by continued demand; they are also used occasionally in hunting, especially for deer and lions (i. e., the swiftest and fiercest game of the region); and the use of the poisoned missile does not destroy the meat of the animal, though the portion immediately about the wound is "thrown away". Two of [126] the treated arrows brought back from Costa Rica were submitted to Dr S. Weir Mitchell some months afterward for examination, and for identification of any poisonous matter found on them; but no poison was detected. On the whole, the data concerning the reputed arrow poisoning are less definite than might be desired; yet they are sufficient to suggest the nature of the custom with considerable clearness.

279 [811] In any consideration of Seri customs it is to be realized that the folk are notably primitive in thought, and hence deeply steeped in that overweening mysticism which dominates all lowly folk—that they still cling to zoomimic motives in their simple handicraft, and are still wholly within zootheism in their lowly faith. In the light of this realization the numerous consistent records of the preparation of the poison are easily interpreted, and are found to be fully in accord with the prevailing motives of the tribe; and the interpretation serves to explain the somewhat discrepant accounts of the effects of the poison, effects ranging from nil to horrible sepsis. According to the more circumstantial recipes, the first constituent of the poison is a portion of lung, preferably human—a selection readily explained by pristine philosophy,

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in which the breath is life, and the lungs at once the seat and the symbol of vitality. Naturally the fleshly symbol is from a dead body; and just as the lung denotes vitality in life, so (in primitive thought) it denotes an emphasized, as it were an incarnated, antithesis of vitality in death. Next, as the recipes continue, this death-symbol is exposed to the most potent agencies of death—to the bites of maddened rattlesnakes, to the stings of irritated scorpions, to the venomed trailings of harried centipedes. Then the deadly creatures are themselves killed, and the fanged heads of the serpents, the stinging tails of the scorpions, and the fiery feet of the centipedes, together with portions of redolent ordure from the grave-cairns, and other symbols of death and decay are crushed and macerated with the mass in a wizard's brew, gruesome beyond the emasculated and degraded witch's broth of medieval times. Finally, the grisly mess is allowed to simmer in a stinkpot[1] shell under the fierce desert sun until its ripeness and putrid potency are attested by the rank fetor of death; when it is ready for its ruthless use. Thus the entire recipe is thanmaturgic in concept, necromantic in detail; it represents merely the malevolent machinations of the medicine-man seeking success by spells and enchantments; it stands for no rational system of thought or practice, but pertains wholly to the plane of shamanism and sorcery. So interpreted the recipe is readily understood; the several witnesses who have independently obtained it are justified, and Mashém's details and unwilling intimations are made clear—especially if the sacrificed flesh about the wound in deer or lion be deemed an oblation, such as primitive folk are given to making. 278

While thus the motive of the medicine-man in compounding his loathsome mess is wholly necromantic, serious consequences of its use must occasionally supervene; and though these may be incidental so far as the philosophy is concerned, they may tend reflexly toward the perpetuation of the custom. In the course of the preparation of the charm-poison, and especially in the final ripening process, morbific germs and ptomaines must be developed; these may retain their virulence up to the time of use, particularly when a batch of poison is prepared for a special occasion and the arrows are used while the application is still fresh; and in such cases the wound might initiate septicemia of the sort described in Castañeda's early narrative and still more clearly displayed by Señor Encinas' saddle-horse (ante, p. 112). Naturally the incidentally zymotic varnish frequently fails of effect, and can hardly be expected to remain morbific long enough to be detected in laboratory experiments; yet it is probable, as attested by Mashém's guarded expressions, that the occasionally terrible results of such poisoning are within the ken of the Seri shamans.

It is noteworthy that the various early accounts of the Seri arrow-poisoning are strikingly consistent, though sufficiently diverse to 279 114

[1] Cleodonema cumingii (I).

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

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[114]

attest independence in origin; it is also noteworthy that several of the accounts are given hesitatingly and half qualifiedly, with alternative references (obviously hypothetical) to vegetal sources of poison. Thus the author of "Rudo Ensayo" qualified a characteristic (though brief) account of the preparation of the poison by adding: "But this is mere guesswork, and no doubt the main ingredient is some root."[1] So, too, Hardy described the compounding of the brew in much detail, adding the significant statement that "when the whole mass is in a high state of corruption the old women take the arrows and pass their points through it"; yet he could not resist the alternative hypothesis, and added: "Others again say that the poison is obtained from the juice of the yerba de la flécha (arrow-wort)."[2] Bartlett "was told that the Ceris tip their arrows with poison; but how it was effected I [he] could not learn," and so he contented himself with quoting Hardy's account.[3] Stone gave the recipe in fairly similar terms, adding that the morbific mass is hung up "to putrefy in a bag, and in the drippings of this bag they soak their arrowheads"; and he gave a characteristic account of the effect of a wound from a poisoned arrow on a human subject (ante, p. 109). Pajeken independently attested the virulence of the poison, and described the consequences of a slight wound suffered by his horse (ante, p. 101), while Pimentel gave independent corroboration, and Orozco y Berra added the further information that the proverbially deadly poison is fortified "by superstitious practices" (ante, p. 103). Bancroft gave currency to the customary recipe, and also to the complementary hypothesis that the "magot" may be the source of the poison; while Dewey merely mentioned the reputed use of poisoned arrows. Like their predecessors, the vaqueros of today are familiar with the tradition of a necromantic brew; but many of them—like Don Jesus Omada, of Batuachito, and Don Ramon Noriega, of Pozo Noriega—display a much more lively interest in the local yerba mala, or yerba de flécha, of which they stand in such mortal dread that they can hardly be induced to approach a clump of it, and which they conceive must add the final crux to the brew. This plant was described in "Rudo Ensayo": "Mago, in the Opata language, is a small tree, very green, luxuriant, and beautiful to the eye; but it contains a deadly juice which flows upon making a slight incision in the bark. The natives rub their arrows with it, and for this reason they call it arrow-grass; but at present they use very little."[4] Elsewhere the anonymous author mentions the use of (presumably) this poison by the Jova, and describes it as "so deadly that it kills not only the wounded person, but also him who undertakes the cure by sucking the wound, as is customary with all the Indians"; the description implying that the infection is irremediable.[5] Yet he apparently discriminated this poison from that of the Seri, for which another plant known as caramatraca

[1] Op. cit., p. 109; cf. ante, p. 72.
[2] Personal Narrative, p. 468.
[3] Op. cit., pp. 127, 128.
[4] Travels, p. 289; cf. ante, p. 87.
[5] Op. cit., p. 181.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

is an infallible remedy. On the whole it seems probable that the yerba mala (*Sebastiana bilocularis?*), or yerba de flécha, or mago, or magot, yielded or furnished the standard arrow-poison of the Opata and perhaps of other Indians, and that the ill-repute of the shrub survived and spread throughout Mexicanized Sonora in such frequent repetition and common belief as to affect the ideas of residents and travelers alike; but it seems equally probable that the magic-inspired brew of the Seri is entirely distinct.[1]

As suggested by widespread primitive customs, and as illustrated specifically by the arrow-charming, the warfare of the Seri is largely sortilegic, this feature being but an extension and magnification of a corresponding feature of their hunting customs. The economic object of the chase is, of course, the flesh of the quarry; but the hunt normally begins with invocatory or other fiducial ceremonies, culminates in a feast opened with oblations, and ends in the use of horns or hoofs, teeth or bones, mane or tail, as talisman-trophies—primarily pledges of fealty to the favorable potencies, only secondarily symbols of success. The observances illumine the ever-present esoteric object of the chase, which is to gain the favor or overcome the power of the beast-god represented by the animal hunted; in general, this is sought to be effected through mimetic movements, or symbolic objects, associated with that animal-kind, and the retained charm-trophy is valued as a symbol of the placation or outwitting of a particular deity. Similarly, the Seri warrior strives for the supposed deific symbols of the enemy—the scalp or headdress or arrow of the alien tribesman, the fire-breathing and echo-waking (as well as death-dealing) wand of the Caucasian; and the Papago arrows, Yaqui scalps, and white man's firearms are sought avidly, treasured as fetishes, and often carried conspicuously as badges of borrowed prowess.[2] So the Seri are never without alien insignia in the form of weapons. The day before the 1895 expedition entered their stronghold, a band of warriors and women were frightened from a freshly slaughtered cow by a party of vaqueros so suddenly that their arms were left behind—and these

[1] It should be noted that the actuality of the poisonous property ascribed to the yerba mala is in some degree questionable; the plant is the only one of southern Papagueria yielding suitable material for arrow-shafts, and it is possible (if not probable) that it was consecrated to this purpose by the aboriginal Opata and protected by taboo in such wise as to become a sacred and fearsome thing. It is accordingly by no means improbable that the reputed poisonous property is but the product of generations of association, and that the plant is really harmless—an inference supported by experiments on the part of the leader of the 1895 expedition, who swallowed the juice of stem and leaves in two or three minute but increasing doses without perceptible effect. On the other hand, it should be observed that the region is one abounding in toxic juices, and that this shrub is so luxuriant and so free from thorny armament and other protective devices of a mechanical sort as to raise the presumption that it must be protected against herbivorous animals, at least, by chemical constituents of some kind (cf. ante, p. 38).

[2] Three motives on the part of the Seri were reciprocated by their tribal enemies: a Papago fetish in the form of an Apache arrowpoint, long worn by an aged warrior as a protection from Apache arrows, was among the spoil of the 1894 expedition; and a "poisoned" Seri arrowhead and foreshaft, worn by a supernaturalized Papago "doctor" as a badge of invulnerability to similar missiles, was confidently shown to the 1895 expedition, but was held above price by its wearer—and this despite the fact that he had been christianized for decades, and retained no other pagan symbols.

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

is what their "shirt" (McGee, pl. 29) probably was. The fabrics of McGee's Mexican informant may refer to gunny-sacks made over into improvised imitations of civilized garments; or to single-element carrying bags. It is entirely possible that contact with the cloth-weaving tribes of Sonora long ago induced the Seri to shrink from habitual complete nudity; but it is difficult to imagine them producing even a coarse wearable cloth. McGee's interpretation of the historic sequence of Seri garments is of course wholly speculative.

The cradle shown by McGee (p. 226, fig. 30) consists of a kite-shaped hoop with eight sticks tied across it and a lashing thong passed back and forth across it half-a-dozen times. Even allowing for some slip of the parts in transport to Washington, this specimen is quite typical in Seri disregard of evenness, neatness, order, or finish. The Yaqui cradle illustrated by Hrdlička[7] consists of eight or nine lengthwise sticks or canes twined close together. The Lower Californians used a basket or a turtleshell. The Gila Pima and river Yuman cradle is of "ladder" type, and therefore similar in structure to the Seri except that it lacks the point at the bottom and has the sides parallel; it also carries a hood of wickered or twilled splints. As regards basic structure, one form of Maidu cradle is most similar to the Seri; just as the plan of the Yaqui one reappears among Miwok, Yokuts, and Mono a little further south in California.[8] It appears from this irregular distribution that so simple an apparatus as the open or flat baby-carrier, which can be just as serviceable without a definite technique or style entering into it, is likely to vary locally without much significance, and that its forms will indicate historic connection only when they are parallel in a number of details. In these respects it resembles house types. In both these objects, new "inventions," certainly of detail elements and perhaps of basic structure, seem to be readily made and adopted.

McGee's finding (p. 247) that the Seri are "not habitual stone arrow-makers" has a parallel among the river Yumans, and, at least partially, among the remaining Sonoran tribes. His conclusion (p. 259) that the *yerba de la flecha* (magot, Sebastiano bilocularis?) was an Opata but probably not a Seri arrow poison, seems sound. The plant was shown me on the island, and the Seri knew it as venomous, but volunteered nothing as to using it on arrows.

That the question of Seri cannibalism must be left open, with a preponderance of evidence against the practice (p. 263), also seems a conservative judgment.

As to shields, McGee learned of loose pelican pelts and turtle-shells (p. 264), I of armor and a large upright shield of hide. Both accounts may be right, one referring to emergency pick-ups, the other ——— to prepared defence or attack.

[7] AA 6, pl. 9, 1904.
[8] BAE-B 78:388, fig. 48, pls. 38, 46.

Food Habits

The food habits of all but a very few of the insects are totally unknown to the Indians but they do have accurate and detailed knowledge of the food habits of fish. This is probably due to the great economic importance of fish to the Seris. They also have very full data for the mammals, including bats, which are said to be insectivorous. The responses varied concerning lizards and often did not parallel the situation in nature. In some instances, the acuteness of the observation was remarkable. Thus, the Northern Crested lizard, Dipsosaurus dorsalis sonorensis, which occurs on the sands of Rancho San Francisco, inland from Desemboque, has been mentioned as climbing trees after fruit. Even more unusual, the leopard lizard, Crotaphytus wislizeni, was said to feed on other species of lizards. And indeed, it is one of the very few species of lizard in the region which habitually devours others of its own kind.

Mating Seasons, Eggs and Nesting

In most of these aspects of natural history the native information is quite deficient. In the case of birds, it is assumed that mating occurs in early spring, that the eggs are laid a month later, that in another month the young hatch out and about the third month they fly from the nest. This sequence seems to represent a conventionalized idea rather than a reflection of direct observation. Another difficult question for them to answer, with respect to the reptiles, was whether the young are born alive or whether they hatch from an egg. Only a few of the species are correctly described, among them the rattlesnakes. Sharks and mantas are said to give birth to live young.

Guesses as to the number of eggs varied from fairly accurate estimates for some of the birds to rough approximations ("many") for some of the reptiles and most of the fishes. The knowledge of bird nesting habits was fair. The informants had no difficulty in pointing out the particular localities where one or another species of bird nests nor in the identification of the nest by its shape and construction. This was especially true of the cormorants, egrets, sea-gulls and pelicans. All these are either marine or shore birds as will be noted.

Animals: Venomous and Otherwise Feared

In contrast to the Mexicans, the Seris fear relatively few animals and they are almost always those which can inflict a vicious or toxic bite or sting. The Mexicans, on the other hand, are afraid of a great many animals. European folklore plays a part in this as does unfamiliarity with the desert and the consequent fear of it.

The Seris fear most the rattlesnake, both the Western Diamondback and the Sidewinder. These snakes, they say, bite with their fangs but the venom is located in the rear of the body, about two inches in front of the anus. A plant called "humco" (?) is used as a remedy both in the form of a drink and as a dressing for the wound. The Mexicans claim this remedy is effective. The coral snake is also considered to be venomous although the Seris believe that its bite is fatal only to Mexicans and not to themselves (!). Most of the

5:Dawson N-5 (1940) 1944 NU31 Seri NU31

252 of nutritious material which was ground to powder on their stone ahsts, winnowed in shallow baskets and made into a meal or paste.

769 824 The abundant cacti of many species served several other functions in the domestic economy of the Seris. The thorny cholla whose insipid fruits were not fit to eat and whose spines were a constant threat to the unprotected bodies of the Seris, found one use, nevertheless, in the burial procedure. After a body was partly covered with earth in the three foot deep grave, it was densely overlaid with chollas before leveling, to discourage the coyotes from digging for the body.

396 824 The dry skeletons of the giant cacti provided the long, cylindrical poles used in knocking off ripe pitahayas as well as in all other instances in which a straight, slender pole was needed. Since the advent of the open boat in modern times, the cactus skeleton has come in for a new use, for after trituration between stone ahst and hupf, it was found to yield a satisfactory caulking compound when mixed with sea-lion oil.

312 824 The barrel cacti, *Ferocactus Wislizenii* and *F. Coulteri*, though ordinarily abundant on the Sonoran desert are rare in Seriland and practically absent from Isla Tiburon where they may easily have been exterminated by the improvident Seris during their centuries of occupancy on account of their recognized value as water providers on the wastelands over which the Seris so frequently ventured.

342 [132] 824 These Indians found housing no problem, for, living under a climate in which frost is rare and rain infrequent, they found little need for shelters except for protection against the blazing desert sun. Camps that were occupied for more than a day or two, however, usually saw the appearance of a group of crude sun shelters. These were usually made of long, flexible ocotillo branches, *Fouquieria splendens*, stuck in the sand and fashioned into an arched framework over which a more or less complete covering of brush was piled. If, by the sea, a windbreak were desired, the brush top and siding were usually augmented by the addition of several empty turtle shells.

262 824 On the delta plain of the Rio Sonora, the mesquite, *Prosopis juliflora*, grows in remarkable luxuriance, these gnarled, spiny trees forming an almost continuous open forest 20-40 feet high. Its fruit, consisting of small, hard beans borne in slender, woody pods forms a concentrated, starchy food that the Seris found highly nutritious if not appetizing. In late summer when all fresh vegetable food had withered and disappeared, provided the turtle fisheries had not yet attracted them back to their island, they often spent [252] some weeks gathering the beans and grinding them into a meal which was eaten as a watery atole or as a paste mixed with sea-lion oil. The more straggly and thorny cat's claw mesquite, *Acacia Greggii*, and the ironwood, *Olneya tesota*, also yielded woody beans in limited quantity.

[518] 534 In the deeper gorges of the mountains the Seris found *Guaiacum Coulteri* yielding a berry of medicinal properties and also *Jacquinia pungens* which produced a nut, edible when not quite ripe, and forming a favorite rattlehead when dry.

Along sandy washes, particularly on the lower flood plain of the Ilano grows a low, shrubby weed, *Hymenoclea monogyra*. Although during times of drought it shrinks to stunted tussocks, after periods of heavy rain its flourishing fens produce abundant seeds eaten both by the beasts of the plain and formerly by the Seris.

385 [191] Before the advent of the tin can and the cardboard carton, basketry was an important handicraft among these Indians

[Text continues on p. 138--Analyst]

5:Dawson N-5 (1940) 1944 NU31 Seri NU31

an important handicraft among these Indians. They made a shallow, coil type basket such as is characteristic of many southwestern tribes. The Seri basket, however, was remarkable for its extreme lightness in proportion to capacity, a quality due to the spongy character of the coil made of a whisp of splints of the torote. Several torotes are found in the region, the commonest species being *Jatropha cardiophylla*. Also used were the torote amarillo, *Jatropha spatulata*, torote blanco, *Bursera microphylla*, and torote prieto, *Bursera laxiflora*. The woof consisted of splints of palo blanco, *Acacia Willardiana*, or of baraprieta, *Caesalpinia gracilis*, deftly interlaced by means of a bone awl to form a smooth, practically waterproof utensil.

In pre-Columbian times the Seris commonly sought wild game, mostly deer, without the aid of weapons, using only their tremendous physical endurance against their prey, chasing the animal until it was exhausted and could be thrown to the ground. With the introduction of iron, however, the development of the bow and arrow achieved prominence, for the shaping and fastening of points had long retarded the exploitation of these implements. Few straight stemmed or straight grained plants grow in Seriland suitable for making arrow shafts, but on the flanks of the deeper gorges of Sierra Seri and Sierra Kunkaak on Tiburon Island, the Indians found one leafy shrub that filled the need, *Sapium biloculare*. The juice of this plant is also said to have been used for arrow poison. The bow was preferably of palo blanco, wrapped and strung with mesquite fiber cord.

The modern Seri tribe consists of barely more than 100 souls, with early extinction threatening from imported diseases. Their natural habits are now vastly modified and they live a comparatively sedentary life near the village of Kino, scavengering for fish heads and other refuse discarded by the fishermen, now and then fishing for themselves when in need. Every year, however, they trek off to the cactus forest for the annual feast, and in late summer many may be seen camping among the mesquite groves near the Kino well where an abundance of both mesquite beans and water makes for easy living.

Malkin E-5 (1953-1955)1962 NU31 Seri NU31

+825 [171] an idea from one animal to another.[13] The *Xanthusia* does not share this similarity to the salamander in appearance, but it is found along with the gecko and behaves much like the gecko when exposed to the light. Hence, perhaps, comes the association.

I excluded here from the discussion the red racer because the notions concerning it are conflicting, with some informants insisting that it is toxic and can cause death and others that it is not. But all agree that it'll bite—and painfully so.

Finally the toad. The toad, although unagressive and considered as such, is feared a great deal as a repository of all sorts of toxic traits. There was some disagreement as to its ability to bite, with some informants thinking that it does bite with its tongue, others thinking it can't bite at all. But all agree on the following attributes of the amphibian: venom in body, toxic on touch, always fatal to eat to most animals and to all men. In this the toad joins the gecko and the *Xanthusia*. [262] These too are believed to be fatal to eat and these three represent the only animals in this class that are considered inedible.

It is interesting that the list of toxic (though non-fatal) animals should also include the *Phrynosoma* although here there seemed to have been again disagreement between the informants. The lizard is perfectly harmless and actually will not [753] bite even in self-defense. But the Seris say it causes swelling.

752 For the rattlesnake bite, the remedy is a plant called *Kásox*. An extract of this plant is made ●278 after boiling it in hot water and then it is taken orally. It is also applied to the wound and, the Seri say, it must be taken all day long for a full day. The Seris take this when they are harmed by these snakes. This plant is supposed to be found in the mountains near Kino but not in the Desemboque or Tiburon area. But in addition to their own medicaments, the Seris, especially the younger fellows, will make use of the regular anti-venom available at the school or mission.

Attitudes Toward Reptiles and Amphibians

+825 With the few exceptions, these animals are not particularly feared. Those that are feared are considered dangerous in some ways, and, in fact, most of them are either by their ability to inflict painful bite or by possession of venom. But otherwise, their attitude seems to be very much a matter of fact and one of unconcern, which seems to corroborate Kroeber's opinion of the Seris' psychological makeup in other matters.

[13]Since this has been written, I have plenty of evidence that the gecko is similarly dreaded in many parts of the world.

[p. 30B]

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

825 known remedy. This bug is actually a vector of the Chagas disease. Its repeated bites may cause allergic sensitization. For lack of clinical observation it is impossible to determine the exact nature of its effects, as the Seris describe them.

The remaining two creatures are both beetles. *Calosoma* is thought a nuisance rather than a danger. Its disagreeable habit is spitting out poison through the rear end of the body which may cause headache for a brief while. To this I may readily attest having on more than one occasion be subjected to *Calosoma's* bombardment. However, at worst it is a mere irritant. Finally *Hippomelas*, sometimes confused with the *Steriphanus* and *Dermestes* are supposedly evil smelling but not harmful.

Finally the male *Arenivaga*, considered separate from the female, the Seris claim also bites with the mouth but it is not dangerous.

What is little surprising is that the Seris did not include in their list a few other insects that could have readily found their way into the "dangerous" gallery. The huge water bug *Leptocerus* of course bites, although the Seris claim it does not. An aquatic insect par excellence, it simply never had a chance to prove to them what it can do. The Pentatomid bug *Rhytidolomia* at least may be included among the stinging variety, although it is perfectly harmless. Finally there are various Reduviid bugs, notorious carnivores, which when disturbed and offered an opportunity will sting painfully. But here again, the Seris may not have played enough with them to find out.

On the whole, the Seris are well informed concerning possible dangers from various insects. As a matter of practical application, they do in this regard far better than the Mexicans."[16]

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278 [16]"The Seris may have used a concoction of insects in arrow poisoning. McGee quotes Hardy who had visited them in 1825 as follows:

> "It is believed that the Ceres Indians have discovered a method of poisoning their arrows and that they do in that way: They kill a cow and take from it its liver. They then collect a number of rattlesnakes, scorpions, centipedes and tarantulas, which they confine in a hole with the liver. The next process is then to beat them with the sticks in order to enrage them, and being thus infuriated, they fasten their fangs and exhaust their venom upon each other and upon the liver. When the hole mass is in high state of corruption, the old women take the arrows and pass the point through it. They are then allowed to dry in the shade and it is said that the wound inflicted by them will prove fatal. Others again say that the poison is obtained from the juice of the yerba de flecha (arrow wort)."

[P. 53 B]